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PROCEEDINGS
OF THE
MONTHLY MEETINGS
OF THE
ENTOMOLOGICAL SECTION
OF THE
ACADEMY OF NATURAL SCIENCES,
PHILADELPHIA.

JANUARY 28, 1886.

Director Dr. HORN in the chair.

The Publication Committee reported in favor of publishing the following papers in the Transactions of the Society:

A biographical and synonymical catalogue of the North American Cynipidæ, with descriptions of new species, by Wm. H. Ashmead.

Dinapate Wrightii and its larva, by George H. Horn, M. D.

A monograph of the species of the sub-families Eucneminae, Cero-phytinæ and Perothopinae, inhabiting the United States, by George H. Horn, M. D.

A monograph of the species of Chrysobothris inhabiting the United States, by George H. Horn, M. D.

The reports were accepted and the publication ordered.

The special committee to audit the accounts of the Treasurer reported that they had examined the accounts and found them correct.

Paper 192 was read by title and referred to the Publication Committee.

The following additions to the Library of the American Entomological Society were read as follows:

Entomologica Americana, vol. i, No. 10. From the Editor.

Entomologists' Monthly Magazine, January, 1886. From the Conductors.

On the structure of the Brain of the Sessile-eyed Crustacea, by A. S. Packard, Jr., M. D. From the Author.

New genera and species of Californian Coleoptera, by Thomas L. Casey. From the Author.

Myriapoda Musei Cantabrigensis, part 1. From the Author.

Dr. Horn exhibited the drawings to illustrate his monograph of *Chrysobothris* and explained the sexual characters.

Mr. Philip Laurent was elected a member.

FEBRUARY 25, 1886.

Director Dr. HORN in the chair.

The Publication Committee reported in favor of publishing paper 192, entitled:

Synopsis of the North American sub-families and genera of Cynipidæ, by William H. Ashmead.

The following additions to the Library of the American Entomological Society were read as follows:

Entomologica Americana, vol. i, No. 12. From the Editor.

Canadian Entomologist, January, 1886. From the Editor.

Proceedings Academy of Natural Sciences, Philadelphia, 1885. Part 3. From the Academy.

Journal of the Cincinnati Society of Natural History, January, 1886. From the Society.

Le Naturaliste Canadien, December, 1885–February, 1886. From the Editor.

Entomologists' Monthly Magazine, February, 1886. From the Conductors.

Proceedings Zoological Society of London, 1885. Part 2. From the Society.

Journal and Proceedings of Royal Society of New South Wales, vol. xviii, 1884. From the Society.

Annales de la Société Entomologique de Belgique, vol. xxix. Part 2. From the Society.

Berliner Entomologische Zeitschrift, 1885. From the Society.

Paper 193 was read by title and referred to the Publication Committee.

An envelope containing leaves with numerous Thrips from Mauna Leo, Porto Rico, W. I., collected by Dr. Antonio Jose Amadeo, was presented by Dr. Joseph Leidy.

MARCH 25, 1886.

Director Dr. HORN in the chair.

The Publication Committee reported in favor of publishing paper 193, entitled:

Studies on the North American Chalcididæ, with descriptions of new species from Florida, by William H. Ashmead.

The same Committee placed on the table the concluding part of vol. xii of the Transactions of the American Entomological Society and Proceedings of the Entomological Section of the Academy of Natural Sciences and reported that ninety-six pages with seven plates of vol. xiii had been completed.

Mr. Cresson reported that the Hymenoptera which had been placed in the hands of Mr. W. H. Patton for study in 1879, had been returned. The condition of Mr. Patton's health was such that he might not possibly recover; in the mean time the entire cabinet of Mr. Patton was placed in the Society's care. The collection contains much valuable material.

The following additions to the Library of the American Entomological Society were read as follows:

Canadien Entomologist, vol. xviii, No. 2. From the Editor.

Entomologia Americana, vol. ii, No. 1. From the Editor.

Entomologists' Monthly Magazine, March, 1886. From the Conductors.

Comptes-Rendus des Sciences, Sér. iii, No. 69. From the Editor.

Bulletin Société Impériale des Naturalistes de Moscow, 1885, Nos. 1 and 2. From the Society.

APRIL 22, 1886.

Director Dr. HORN in the chair.

The Publication Committee reported that the Transactions to the conclusion of Dr. Horn's paper, p. 124, on *Chrysobothris*, had been completed.

Mr. S. F. Aaron exhibited some specimens of Diptera and Hymenoptera exhibiting a great superficial resemblance.

The question of mimicry was discussed by the members, and instances of so-called mimicry were cited in which the habitats of the species were so remote as to preclude the idea of protection or any other of the assumed reasons for the similarity.

Paper 194 was read, and on motion referred to the Publication Committee.

The following additions to the Library of the American Entomological Society were read as follows:

Canadian Entomologist, vol. xviii, No. 3. From the Editor.

Bulletin Buffalo Society of Natural Sciences, vol. v, No. 1. From the Society.

Bulletin Washburn College Laboratory of Natural History, vol. i, No. 4. From the Editor.

Proceedings Boston Society of Natural History, vol. xxiii, sig. 13, 14. From the Society.

Entomologists' Monthly Magazine, April, 1886. From the Conductors.

Proceedings Entomological Society of Washington, D. C., vol. i, No. 1. From the Society.

Transactions Entomological Society of London, 1885. From the Society.

Journal Bombay Natural History Society, vol. i, No. 1. From the Society.

Comptes-Rendus des Sciences Sér. iii, No. 70. From the Editor.

Entomologisk Tidskrift, 1885, Heft 1-4, af Jacob Spangberg. From the Author.

Verhandlungen Zoolog.-botan. Gesellschaft in Wien, Band 35, No. 2, 1885. From the Society.

Bulletin Société Impériale des Naturalistes de Moscow, 1884, No. 4. From the Society.

Systematische übersicht der Fossilen Myriapoden, Arachnoideen und Insekten, von S. H. Scudder. From the Author.

On some new Psocidæ, by S. Frank Aaron. From the Author.

Reports of experiments with various Insecticide substances chiefly affecting Garden Crops, made under direction of the Entomologist C. V. Riley. From the Author.

Revision of the Californian species of Lithocharis and allied genera, by Thomas L. Casey, 1886. From the Author.

Biologia Centrali-Americana. Part 45, February, 1886. By purchase.

MAY 27, 1886.

Director Dr. HORN in the chair.

The Publication Committee reported in favor of publishing paper 194, entitled:

Review of the Species described by Olivier in the "Entomologie," by George H. Horn, M. D.

They also reported that part 2 of the Transactions had been completed to p. 144; the number will be issued as soon as the Proceedings are printed.

Mr. Cresson reported that the committee appointed by the American Entomological Society had chosen George B. Cresson as the Custodian of the Collections and Library for the balance of the year.

Dr. Horn read a brief sketch of our late member, Mr. Charles Wilt, which was ordered published in the Proceedings.

Dr. Horn also read some notes made on a recent visit to Cambridge, also a brief review of the two volumes of the "Biologia Centrali-Americana" Coleoptera, that are complete. These were ordered published in the Proceedings.

The following additions to the Library of the American Entomological Society were read as follows:

Le Naturaliste Canadien, April, 1886. From the Editor.

Insects affecting the Orange, by H. G. Hubbard. From the Author.

Entomologica Americana, April, 1886. From the Editor.

Canadien Entomologist, vol. xviii, No. 4. From the Editor.

Proceedings Boston Society of Natural History, vol. xxiii, sig. 15, pp. 225-240. From the Society.

Bulletin Museum of Comparative Zoölogy, vol. xii, Nos. 3 and 4. From the Museum.

Entomologische Zeitung, herausgegeben von dem Entomologischen Vereine zu Stettin, vol. xlvi. From the Society.

Biologia Centrali-Americana. Coleoptera, vol. iii, part 2, pp. 313-36; vol. iv, part 1, pp. 137-52; vol. vi, part 2, pp. 97-112, pl. 4. Hymenoptera, pp. 265-288, pl. 12. Heterocera, vol. i, pp. 161-68. By purchase.

Nunquam Otiosus, Schaufuss. Parts 1-3. By purchase.

Opuscula Entomologica, Thomson, parts 6-10. By purchase.

Apidæ Europæa, Schmiedeknecht, parts 1-10. By purchase.



MR. CHARLES WILT.

In 1859 a few friends met to consider the formation of an entomological society, and in response to the call Mr. Wilt was one of fifteen who assembled. The organization was soon completed, and Mr. Wilt became treasurer March 14th of that year, remaining in that position until the close of 1863.

For nearly a year the Society met at the houses of its members until it was resolved that a library and cabinet would be necessary to aid the members in their studies. The difficulty of finding a home for the Society was solved by Mr. Wilt, who placed at its disposal the large saloon-room of his house, then recently built, and from Jan. 9, 1860, until August, 1862, these comfortable quarters were occupied without expense to the Society, and in this room the first volume of our Proceedings was printed—on a small hand-press—page by page.

The interest taken by Mr. Wilt in the Society increased with its progress, and no one was more ready to respond to any call for personal or pecuniary assistance than he. While not an active student of entomology he kept himself well advised in whatever related to its progress, especially in the fauna of our country. His interest was concentrated in the two orders COLEOPTERA and LEPIDOPTERA, and by liberal purchases and constant exchanges he accumulated a collection of the former order standing high in rank in our country, while in certain portions of the LEPIDOPTERA, the Sphingidæ and Catocalæ, his series has but few, if any, superiors.

His cabinet was at all times freely at the disposal of others, and very many of his friends were accustomed to use it in naming their local captures. To those who desired the use of his material for more thorough study he was especially kind in loan and gift, as it has been my pleasure on many occasions to testify.

Of the life of Mr. Wilt apart from his connection with our Society very little need be said. With an early training to mercantile pursuits he continued in business until his death, acquiring a competency, which enabled him to indulge his love for entomology.

Mr. Charles Wilt was born June 12, 1821, and died April 3, 1886.

GEO. H. HORN, M. D.

Notes on the "Biologia Centrali-Americana."

BY GEO. H. HORN, M. D.

Students of the natural history of the North American continent have much to be thankful for in the progress of the important work undertaken under the editorship of Messrs. Godman and Salvin, with the collaboration of those whose names scarcely need any additional lustre from the "*Biologia*."

The work aims to embrace that portion of the continent of North America south of the boundary line of the United States and including the Isthmus of Panama. From a political stand-point the Peninsula of California should have been included, but it has been omitted, from the fact that many of the species have been described by Dr. LeConte and myself, showing that the fauna of that region (with the exception of the extreme southern end) is much more closely related to our Arizona region than would be any similar southern extension from the boundary line of Arizona.

The territory along the boundary line is for the most part an inhospitable region—hot, dry and barren, with occasional more or less fertile valleys extending in a general direction N. W. to S. E. Some of these valleys are properly Arizonian extensions, others extend upwards from Mexico. The latter case prevails in the northwestern portion of Mexico, while the reverse exists in the northeast, in the region west of the Rio Grande. This results in a preponderance of the species of the region from which the fertile peninsula arises. The broad belt of desert, hot and rainless, east and southeast of Fort Yuma seems to act as an effectual barrier against the intermingling of the species of the two faunas to any notable extent.

The collection made by Morrison teaches very little. How far he went below the boundary I do not know, although my series was purchased as from Arizona purely, and the same series is quoted by the authors of the "*Biologia*" as from northern Sonora. With very few exceptions the series was such as we are accustomed to meet in Arizona with no greater admixture of Mexican forms than we find on the Texas side of the Rio Grande.

On the whole the two faunas, Boreal and Central America, seem to be quite distinctly marked, more so than would be expected from the topography of the greater part of the border zone as there are no natural obstructions—as high mountains or wide seas—in the way of a free intermingling of species.

These remarks, which must be restricted in their application to the Coleoptera alone, express the views entertained by Dr. LeConte and explained in his notes on the first series of Coleoptera collected by Xantus in the Peninsula of California. Mr. H. W. Bates seems to have adopted what is practically the same idea, as I have gathered from his introduction to vol. i, and isolated expressions more particularly in the Appendix.

To students of the Coleopterous fauna of the more northern portions of the continent the work is indispensable, and will doubtless diminish in future the duplication of descriptions of species on the two sides of the line. It is only to be regretted that the authors have satisfied themselves with cataloguing very many of the species, giving, often, too abundant citations of habitat in place of a few lines of description, which would have been of far greater utility.

The first volume of COLEOPTERA deals with the Cicindelidæ and Carabidæ, and is from the hands of Mr. H. W. Bates. It contains 316 pages and 13 plates, on which are figures of 323 species and varieties. Publication of the volume began in October, 1881, and finished in August, 1884. In going over the pages a few notes have been made, which have been thought of sufficient interest to give:

Iresia boucardi Chev., p. 17. A male of this species taken at Cordova by José Nieto, and now in my possession, is entirely rufo-testaceous beneath. The male was unknown to Mr. Bates, and it is probable that he is entirely correct in separating *Iresia pulchra* as distinct.

Calosoma peregrinator Guer. As this species has *C. carbonatum* Lec. for a synonym, the remarks concerning *prominens* and *lugubre* Lec., should be disregarded.

Micrixys distinctus Lec. This species should be added on p. 41. I have seen a specimen in the possession of Mr. Flohr, collected (I think in Coahuila) in Mexican territory.

Dicaelus flohri Bates, p. 49. Mr. Bates is correct in referring (on p. 269) this species to *laevipennis* Lec.

A second species, *D. costatus* Lec., occurs in Mexico (see preceding note).

On p. 73 Mr. Bates seems to have doubts as to the position of *Polpochila*. The difficulty seems capable of solution by accepting as groups (or whatever else they may be called) those aggregations of genera with male tarsi dilated and (1) biserially squamose, or (2) spongy pubescent, and (3) those with undilated male tarsi with few or no squamules. While it is inferentially stated here that I have suggested too many subdivisions I am reminded on p. 75 that I have not made quite enough.

Evarthrus constrictus Bates, p. 80. This name is preoccupied in the genus and in the series with bisetose labial palpi.

Blechrus glabratus Duft., p. 192. This European species is quoted from California. That the *nigrinus* Mann., is a *Blechrus* is undoubted, as LeConte had a type from Mannerheim. It is highly probable that the *nigrinus* is *glabratus*. I am not aware that *Metabletus* occurs in California, but it is known from British Columbia, etc.

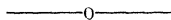
On p. 220 Mr. Bates intimates that I consider *Loxopeza majuscula* Chd., a synonym of *L. grandis* Hentz (not Hald.). All my publications have been quite to the contrary.

The *Discoderus* mentioned on p. 276, as number 10, had been described by me as *robustus*.

With page 256 of this volume the supplementary part begins, in which we find introduced the species collected by Mr. Morrison. On going over these latter it will be observed that, with extremely few exceptions, all had been described from our territory.

It seems worthy of special note that *Scaphinotus mexicanus* is the only Cychride described or recorded, while in California species of the subgenus *Brennus* are numerous. Arizona has not, to my knowledge, furnished even a specimen of Cychride, while the adjacent region of New Mexico furnishes *Scaphinotus Snowii* Lec., and northward in Colorado we find only *S. elevatus*.

The occurrence of a species of *Carabus* is remarkable. In Calosoma the fauna of Mexico is unexpectedly less rich than our own, twenty being enumerated from Mexico and twenty-six with us. Three are common to the two regions: *scrutator*, Sayi (*armatum* Lap.) and *peregrinator* (*carbonatum* Lec.) while another, *angulatum*, is admitted to our lists with doubt.



The fifth volume of COLEOPTERA comprises the Cerambycidae and Bruchidae (the intermediate volumes being in preparation), and consists of 537 pages and 26 plates, illustrating over 500 species or varieties. The part relating to Cerambycidae is the result of the studies of Mr. H. W. Bates, that concerning the Bruchidae of Dr. David Sharp.

Perilasius Bates, p. 16. This genus is related to *Brothylus* and *Osmidus*. It differs from the former in having the anterior coxæ less angulated externally; the antennæ are similarly sulcate. *Osmidus* has the anterior coxæ as in *Perilasius*, but the antennæ are not sulcate. *P. championi* has a great superficial resemblance to *O. guttatus* Lec.

Page 84. Mr. Bates proposes to unite under the generic name *Sphenothecus* those species which, in our fauna, are divided among several genera, viz.: *Sphenothecus*, *Ischnocnemis*, *Entomosterna* and possibly *Perarthrus*. As we have but one species in each it would be presuming to controvert the opinion of Mr. Bates, but the separation of genera in the Cerambycidae seems to depend entirely on the standpoint from which separation starts. Important structural characters have, in this family, at times merely specific or sexual value, as between *Gaurotes cyanipennis* and *abdominalis* in the mesosternum as well as in the vestiture of the hind tarsi in the two sexes of *Acmeops militaris*. The form of the mandibles, the initial point of LeConte's subdivision, seems to me more important and less subject to variation than the form of the mesosternum.

Lepturges infilatus Bates, very closely resembles our *angulatus*, but is less distinctly punctured.

L. symmetrimacula Bates, is extremely close to our *symmetricus*. I have seen but one of the form.

On page 216 Mr. Bates recurs to the question of *Amphionycha* and its type, and I think supplies what was lacking in my previous notes in proof of the fact that LeConte was the first who described the genus and gave a definite type. Mr. Bates' argument is correct if we admit the propriety of shifting one of Chevrolat's names from one type to another, and then admitting that Leseleuc established the genus, although "he did not give a generic formula."

On page 314 the name *Agalissus gratus* Hald., has been placed as a synonym of *clytoides*, while the case should be reversed.

Myrmolamia Bates, p. 363. This is identical with *Cyrtinus*, as I am informed by Mr. Bates. It is interesting to find the genus extending so far as Panama.

On page 392 it is suggested that our species of *Liopus*,—*Wittii*, *crassulus* and *fascicularis* should be referred to *Eleothis*. The characters seem extremely feeble for generic separation.

With page 437 of the fifth volume the portion relating to the Bruchidæ begins, Dr. David Sharp the author. In the Mexican fauna there are but three genera, as in our own, but the species far exceed those described in our fauna. Dr. Sharp remarks that in our "Classification" the Bruchidæ are placed between the Chrysomelidæ and Tenebrionidæ. While this is true it is merely from the mechanical necessities of book-making. The Tenebrionidæ and Chrysomelidæ belong to two distinct divisions of normal COLEOPTERA, and while the Bruchidæ are placed between the two families, it is intended to indicate their relationship with Chrysomelidæ, but not even the most vague with the Heteromera, as will be seen by reference to p. xxxvi of the Classification.

Bruchus longiventris Shp., p. 476, is protractus *Horn*.

Spermophagus p. 492. Under this genus Dr. Sharp has suppressed *Zabrotes Horn*, and probably justly, but whatever the typical form of *Spermophagus* may be the species *robinæ* and those separated by me as *Zabrotes* should not belong to the same genus.

Notes from the Museum at Cambridge.

BY GEORGE H. HORN, M. D.

The Museum became the recipient of the cabinets of Ziegler and Melsheimer by purchase, and the types have been examined with extremely few exceptions by Mr. Henshaw and myself, and our results will soon be published by him in the manner already adopted for other of the older authors. The search for the actual types required a considerable expenditure of time and labor, as many were scattered in the general collections of the Museum, while others were in the cabinet of Dr. LeConte.

Fortunately, a short time before my arrival, the Museum had received a number of duplicates representing a portion of the species studied by H. W. Bates in the volumes on Carabidæ and Cerambycidæ of the *Biologia Centrali-Americana*. These fortunately remained intact until I had an opportunity to examine them. I have made the following notes:

Lachnophorus sculptifrons Bates. I am unable to see that this differs from *L. elegantulus* Mann.

Anchonoderus myops Reiche. My *A. quadrinotatus* resembles this species, but has a much larger humeral red spot. Unfortunately I had not sufficient material for comparison, but I suspect that the species have been unduly increased.

Anchomenus decempunctatus Reiche. I am not able to see that this differs from our *Platynus bembidioides* Kby., which in our fauna extends from the Hudson's Bay region to Arizona.

Philophuga viridicollis. This species has been incorrectly determined, and should be *amoena* Lec. Chaudoir has already made the same mistake, calling the latter species *Horni*. I have already corrected this error, Trans. Am. Ent. Soc. 1882, p. 144.

Galerita mexicana Chd. It is highly probable that the species described by me as *G. decipiens* (Trans. Am. Ent. Soc. xii, p. 131) is identical with this, my determination being from memory alone, but why Mr. Bates makes *atripes* Lec., a synonym I cannot understand, as it is certainly not warranted either by the facts of the case or the date of publication.

Anisotarsus mexicanus Dej., has been described as *Anisodactylus arizonæ* Casey. I can see no reason why the generic name used by Casey should not stand.

Anisotarsus brevicollis Chaud., also occurs in Arizona. It is a very black species, the female more opaque than the male.

Bradycellus obsoletus Say. This species does not differ from the very variable *Tachycellus nitidus* Dej.

Chlænius cæruleicollis Chd., has been redescribed by me as *C. insperatus*.

Chlænius chrysopleurus Chaud., has been incorrectly determined by me as *C. validus* (Trans. Am. Ent. Soc. 1876, p. 257).

Bembidium scintillans Bates, has been redescribed by Mr. Casey as *B. vinnulum*.

Stenosphenus hirsutipennis Bates, is identical with *S. lugens* Lec.

Nyssodrys contempta Bates, is *Haldemani* Lec.

At the time of my review of the Acanthocinini there was but the typical specimen known, a ♂. Since, others have been abundantly obtained by Mr. G. Noble, of Savannah, and the presence of an ovipositor in the ♀ shows that it must be referred to the group Acanthocini and placed after Acanthocinus, from which it may be separated in the table by the antennæ not fimbriate and the lateral tubercle of the thorax close to the base. The species must be known as *Nyssodrys Haldemani*.

Malacopterus lineatus Guer., with the species *M. vittatus* Lec., is identical.

Tetraopes rubrocinereus Thoms., is identical with *T. discoideus* Lec.

The following synonymy was given me by Mr. F. Blanchard from Mr. A. Fauvel:

Stenus atomarius Casey, is *pumilio* Er.

mannmops Casey, is *humilis* Er.

subgriseus Casey, is *morio* Grav.

reconditus Casey, is *tarsalis* Ljungh.

The following additional notes have been made from an examination of specimens in the cabinet of Dr. LeConte:

Bembidium stabile Lec. This species is exactly identical with *lugubre* Lec.

B. nitens Lec. (*picipes* † Mann.) does not differ from *Grapii* Gyll.

B. pictum Lec. This name being preoccupied, *flavopictum* Mots. must be used.

Pterostichus (*Poecilus*) *cyaneus* Lec. This name is also preoccupied, and Chaudoir has proposed *cyanicolor*, Abeille, 1875, p. 84.

Gyrinus gibber Lec. This specimen is simply a deformity of *analis*. By an accident this species is erroneously placed in the synopsis by Dr. LeConte, and should have come after *analis*, as will be seen by the letter *b*, the mesosternum being not at all trilobed in front as in *pectoralis* (*vide* Proc. Acad. 1868, p. 370).

Elmis vulneratus Lec., is merely a color variety of *glaber* Horn.

Pristoscelis cruralis Lec., should be referred to *Listrus*.

Platycerus Agassii Lec. The type specimen is a female, and the species described as *P. californicus* Casey, is perfectly identical.

Leptura spuria Lec. This is positively the ♂ of *Acmaeops militaris* Lec. In this species the first joint of the ♂ hind tarsus is not densely pubescent beneath.

Leptura quadrata Lec. This species is a color variety of *convexa*, itself a race of *instabilis*. *L. quadrata* has pale antennæ and legs,

but this is by no means rare in normally marked specimens of *convexa*; the elytra are entirely black, except two marginal yellow spots on each elytron, one a little before, the other behind the middle; these are the ends of the yellow bands seen in *convexa*.

Leptura brevicornis Lec. This species was described from a female. At the present time both sexes are before me. In the female the antennæ are short, gradually thicker to tip, extend but little beyond the humeri and are 11-jointed, while in the male the antennæ are as long as the body, slender and subserrate (as in *canadensis*) and with the eleventh joint almost divided. The male insect is also much smaller than the female, the elytra more densely but less coarsely punctured.

Leptura sexmaculata Linn. The species mentioned by Dr. LeConte in his table (New Species, 1872) agrees well with the figure given by Olivier, but *vexatrix* Mann., is erroneously placed as a synonym. The latter species more closely resembles *convexa* in its markings, but is a much more slender species, with the apices of the elytra obliquely truncate. *L. vexatrix* Mann., should be restored to a place in our lists following *sexmaculata*.

Haltica inaequalis Lec., is simply a color variety of *ignita* Ill.

The following synonymy has been otherwise observed:

Metachroma cuprea Provancher, Nat. Canad. x, p. 383, is *Scelodonta nebulosa* Lec. Through the kindness of l'Abbe Provancher I have been enabled to examine the type.

Brumus septentrionis Weise, Stett. Zeit. 1885, p. 203, is *Exochomus marginipennis* Lec., and the variety in which the elytra are in great part red, the suture black and abruptly dilated at apex, on each elytron two black spots.

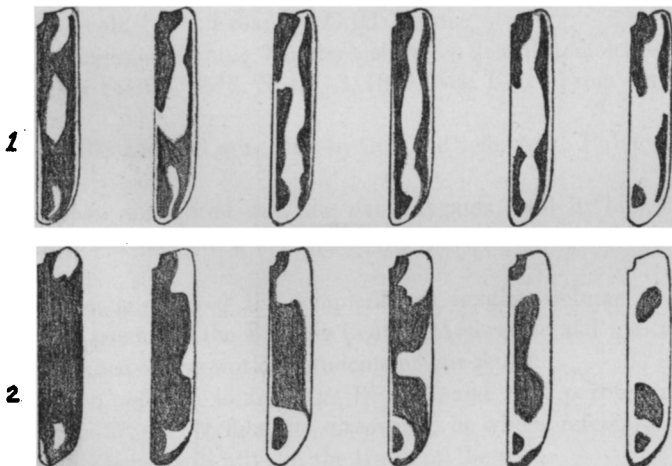
In the Revue d'Entomologie, 1885, p. 134, Mr. Fauvel indicates the possible identity of *Dircæa fusca* Lec. with *Phlæotrya Vaudoueri* Muls. I have recently received, through the kindness of Mr. Fauvel, a specimen of the latter, and am happy in confirming his supposition by direct comparison. The question of the generic name remains to be settled. From the remarks of Mr. Fauvel it seems that *Dircæa* Fab., is purely a synonym of *Serropalpus* and *Phlæotrya* was proposed by Stephens for the species considered by his cotemporaries as *Dircæa*. As Mr. Fauvel is doubtless correct, the name *Dircæa* in our lists should be replaced by *Phlæotrya* and the specific name *fusca* Lec. by *Vaudoueri* Muls.

During the progress of the "Genera" Dr. LeConte, with a commendable liberality, sent to Lacordaire for study a number of types of genera, and in particular many from California, among which were several uniques, namely, *Acrepis maculata*, *Craniotus pubescens*, *Cryptadius inflatus* and *Auchmobius sublævis*. By an unfortunate calamity the vessel conveying them never reached Europe, and the specimens were lost; the types of Schönherr's Curculionidæ were near meeting a similar fate some years later. Two of the lost species were recovered during my travels in the West, the third is due to Crotch, while it is now, after more than thirty years, a pleasure to add the fourth.

Psoa (*Acrepis*) **maculata** Lec. Ann. Lyc. v, p. 213. Form elongate, slightly depressed cylindrical, sparsely pubescent, æneo-piceous varying to blue. Head coarsely, moderately densely punctured; thorax subquadrate, narrowed at base, basal margin slightly reflexed, apical margin slightly impressed on each side of the insertion of the head, median line slightly impressed posteriorly, disc coarsely punctate, very densely at the sides; elytra slightly wider than the thorax, coarsely and deeply, but not densely punctured, surface variably ornamented with yellowish white spaces forming often a narrow lateral and more irregular median vitta. Body beneath æneous or bluish, the abdomen variable in color sexually. Length .30-.40 inch; 7.5-10 mm.

Male.—Thorax a little longer than wide; the three joints of the antennal club together much shorter than all the preceding joints. Abdomen above and beneath æneous, rarely paler at tip, the sixth segment distinctly emarginate.

Female.—Thorax broader than long; the joints of the club nearly as long as the preceding joints. Abdomen reddish yellow, the small terminal segment piceous, the sixth segment not emarginate.



1.—Variations of elytral markings of *P. maculata* Lec.

2.— idem. *P. quadrisignata* Horn.

The markings of the elytra are so variable in the specimens I have seen that I have prepared a series of sketches representing in the upper row *maculata*, and in the lower *quadrisignata*. The first figure in each line is the typical form of the two species, and from the series it will be observed that in *maculata* the tendency is to become vittate, while in the other the darker ground-color gradually lessens, leaving the elytra simply red, spotted with blue.

In *quadrisignata* the same sexual characters have been observed as in *maculata*. In the former species the thorax is more nearly ovate, the sides arcuately narrowing to base, while in *maculata* they are parallel at middle, the disc more convex and shining, and less densely punctured in the former species. The form of the two species is also different, *quadrisignata* being more slender and cylindrical, resembling *Polycæon*, while *maculata* more nearly approaches some *Clerides*.

It seems remarkable that Dr. LeConte should have obtained an unique of what seems the rarest species, and that more than thirty years have passed without its recovery. In view of the great variability of the elytral markings of *quadrisignata* we were disposed to suppress the name proposed by me as a possible variety, but I am now confident that we have to deal with two distinct species.

I have been told that *quadrisignata* infests grape vines.

JUNE 14, 1886.

Director Dr. HORN in the chair.

The following additions to the Library of the American Entomological Society were announced :

Canadian Entomologist, vol. xviii, No. 4. From the Editor.

Entomologica Americana, vol. ii, No. 3. From the Editor.

Entomologist's Monthly Magazine, June, 1866. From the Conductors.

Journal Bombay Natural History Society, vol. i, No. 2. From the Society.

Comptes-Rendus des Sciences Sér. iii, No. 71-73. From the Editor.

Annual Report of the Smithsonian Institution for 1885. From the Institution.

Recherche de l'espece Typique. From the author, through Dr. Horn.

Bulletin of the Brookville Society of Natural History, No. 2. From the Society.

Proceedings of the Zoological Society of London, 1885; part iv, 1886. From the Society.

Eighteenth Annual Report of the Peabody Academy of Sciences. From the Academy.

Matériaux pour la faune Entomologique de la Province d'Anvers. Coléoptères par A Predhomme de Borre. From the Author.

Papilio, vols. 1-3. From Dr. G. H. Horn.

Entomologische Zeitung, herausgegeben von dem Entomologischen Vereine zu Stettin. 1876, Nos. 1-3, 1879, Nos. 1-3. From Dr. G. H. Horn.

Papers 195 and 196 were read by title and referred to Publication Committee.

Mr. Blake announced that the name *Agama*, used by him for a genus of Mutillidæ, was preoccupied and *Photopsis* was suggested to replace it.

Dr. Horn announced the completion of another volume of the Coleoptera portion of the *Biologia Centrali-Americana* and indicated the importance of the work to students of our fauna.

Dr. Horn referred to *Dinapate Wrightii*, and read portions of a letter from W. G. Wright, its discoverer, in which reference was made to the larvæ still alive in the trunk of the tree.

The application of George B. Cresson for associate membership was read the second time, and on ballot he was duly elected.

On motion of Mr. Knight the Section adjourned until the regular time of meeting in September.

SEPTEMBER 23, 1886.

Director Dr. HORN in the chair.

The following additions to the Library of the American Entomological Society were announced :

Transactions of the American Entomological Society, vol. xiii, Nos. 1-2. From the Publication Committee.

Transactions of the Wisconsin Academy of Sciences, Arts and Letters, vol. vi, 1881-83. From the Academy.

Bulletin of the Buffalo Society of Natural Sciences, vol. v, No. 2. From the Society.

Bulletin of the Museum of Comparative Zoology, vol. xii, No. 5. From the Museum.

Transactions of the Natural History Society of Odessa, vol. x. From the Society.

Proceedings of the Academy of Natural Sciences of Philadelphia, 1886, part 1. From the Academy.

Proceedings of the Boston Society of Natural History, vol. xxiii, sig. 16-17. From the Society.

Entomologica Americana, vol. ii, No. 6. From the Editor.

Naturaliste Canadien, vol. xv. No. 12, xvi, No. 2. From the Editor.

Entomologist's Monthly Magazine, Nos. 266-268. From the Conductors.

Canadian Entomologist, vol. xviii, No. 5. From the Editor.

Journal of the Bombay Natural History Society, vol. i, No. 3. From the Society.

Journal of the Linnean Society of London, vol. xix. From the Society.

Report of the Entomologist, Charles V. Riley for 1885. From the Author.

Proceedings of the Zoological Society of London, 1886, part 1. From the Society.

Sixteenth Annual Report of the Entomological Society of Ontario. From the Society.

Verhandlungen des naturhistorischen Vereines der preussischen Rheinlande und Westfalens, vol. xxiv. From the Society.

Naturgeschichte der Insecten Deutschlands, vol. vi, part 4. From the Editors.

Berliner Entomologische Zeitschrift, vol. xxx, part 1. From the Society.

Annales de la Société Entomologique de France, 1885. From the Society.

Comptes-Rendus des Sciences, Sér iii, Nos. 74-75. From the Editor.

Bulletino della Societa Entomologica Italiana, 1886, Trim. 1-3. From the Society.

Species des Hyménoptères d'Europe et l'Algerie, par Ed-André, vols. ii-iii. From the Author.

Artropodos del Viaje al Pacifico, per Ignacio Bolivar. From Dr. G. H. Horn.

The Mulberry Silk-worm, being a Manual of Instructions in Silk Culture, by C. V. Riley. From the Author.

A generic Synopsis of the hymenopterous Family Proctotrupidæ, by L. O. Howard. From the Author.

Biologia Centrali-Americana. Hymenoptera, pp. 289-312; Diptera, pp. 1-48; Lepidoptera-Heterocera, vol. i, pp. 169-192, pl. 16-17; Coleoptera, vol. i, part 2, pp. 537-608, pl. 14; vol. ii, part 2, pp. 1-24; pl. 1; vol. iii, part 2, pp. 337-372, pl. 13, title and index; vol. iv, part 1, pp. 153-216, pl. 7-9; vol. vi, part 1, pp. 441-472, pl. 25, 26, part 2, pp. 113-124. By purchase.

The report of the Custodian was read and accepted.

The Publication Committee reported in favor of publishing papers 195 and 196, entitled:

Descriptions of new Pyralidæ, by Geo. D. Hulst.

A generic Synopsis of the hymenopterous Family Proctotrupidæ, by L. O. Howard.

Dr. Horn exhibited to the members two photographs of the tomb of Thomas Say at New Harmony, Ind.; also an india ink sketch of the house built on the spot formerly his residence.

Specimens of *Dinapate Wrightii* were shown by Dr. Horn which had emerged during the early part of the month from the fragment of the tree trunk sent several months ago by W. G. Wright.

Specimens of *Geotrupes chalybæus* were also shown. This species had been described from fragments in the cabinet of Dr. LeConte.

The species although large had never before been represented in cabinets by entire specimens. Now that its habits are better known it will probably become common.

The Custodian requested permission, and was allowed to use such duplicates not desirable for the cabinet, for public exhibition in the Museum of the Academy.

OCTOBER 25, 1886.

Director Dr. HORN in the chair.

The following additions to the Library of the American Entomological Society were announced:

Proceedings of the Boston Society of Natural History, vol. xxiii, sig. 18-19, pp. 273-304. From the Society.

Memoirs of the Boston Society of Natural History, vol. iii, Nos. 12-13. From the Society.

Bulletin of the Essex Institute, vol. xvii, Nos. 7-12. From the Institute.

Proceedings of the Zoological Society of London, 1886, part 2. From the Society.

Transactions and Proceedings of the Royal Society of South Australia, vol. viii. From the Society.

Canadian Entomologist, vol. xviii, No. 7. From the Editor.

Entomologist's Monthly Magazine, No. 269. From Conductors.

Journal and Proceedings of the Hamilton Association, vol. i, No. 2. From the Association.

Fourth Report of the U. S. Entomological Commission, 1883-85. From the Commission.

Reports 7, 10, 12 and 14 of the State Entomologist of Illinois. From the State Board of Agriculture.

Horæ Societatis Entomologicæ Rossicæ, vol. xix, 1885. From the Society.

Annali Museo Civico di Storia Naturale di Genoa, vols. xviii-xx, 2d ser. vols. i-ii. From the Museum.

Mittheilungen der Schweizerischen Entomologischen Gesellschaft, vol. vii, Nos. 5-6. From the Society.

Verhandlungen der kaiserlich-königlichen Zoologisch-botanischen Gesellschaft in Wien, vol. xxxvi, Nos. 1-2. From the Society.

Comptes-Rendus, des Sciences, sér. iii, No. 76. From the Editor.

Le Naturaliste Canadien, vol. xvi, No. 3. From the Editor.

Life of North American Insects, by Prof. B. Jaeger, 1854. From C. C. Cresson.

Nomenclator Zoologicus, by S. H. Scudder. From the Department of the Interior.

The monthly report of the Custodian of the Section was read, in which it was stated that the greater part of his time had been devoted to the Wilt collection.

Papers 197 and 198 were read by title and referred to Publication Committee.

The Director announced to the Section that the Coleoptera of the collection of our late member, Charles Wilt, had been presented to the American Entomological Society by Mr. Harry C. Wilt, his son.

The Publication Committee reported that they considered it advisable to publish the "Synopsis of the Families and Genera of Hymenoptera of North America" by E. T. Cresson as an intercalary volume. On motion of Mr. Knight the suggestion was approved.

The application of Mr. J. H. B. Bland for associate membership was read a second time, and on ballot he was duly elected.

Dr. Horn suggested the utility of lectures by members of the Section as a means of stimulating further study on the part of younger members and others, and offered to begin on any subject connected with Coleoptera that those present would suggest.

NOVEMBER 25, 1886.

Dr. SKINNER in the chair.

The following additions to the Library of the American Entomological Society were announced:

Proceedings of the Academy of Natural Sciences of Philadelphia, 1886, part 2. From the Academy.

Proceeding of the Zoological Society of London, 1886, part 3. From the Society.

Bulletin of the Essex Institute, vol. xviii, Nos. 1-6. From the Institute.

Canadian Entomologist, vol. xviii, No. 8. From the Editor.

Entomologist's Monthly Magazine, No. 270. From Conductors.

Entomologia Americana, vol. ii, No. 8. From the Editor.

Miscellaneous Essays on Economic Entomology, by S. A. Forbes, State Entomologist of Illinois. From the Author.

Le Naturaliste Canadien, vol. xvi, No. 4. From the Editor.

Comptes-Rendus des Sciences, Sér. iii, No. 77. From the Editor.

The Cockroach of the Past, by S. H. Scudder. From the Author.

Une expérience sur la Fonction des Antennes chez la Blatte, par Felix Plateau. From the Author.

Notice Bibliographique de F. A. J. Plateau. From the Author.

Palpes des Myriopodes et des Araneides, par F. Plateau. From the Author.

Extrait des Archives de Biologie, par E Van Beneden et C. Van Bambeke, vol. vii, 1886. From the Authors.

The Publication Committee reported in favor of publishing in the Transactions Am. Ent. Soc. the following :

Paper 197, Dipterological notes and descriptions, by S. W. Williston, M. D.

Paper 198, Catalogue of Syrphidæ of South America, by S. W. Williston, M. D.

Paper 199 was read by title and referred to Publication Committee.

The application of H. M. Wenzel, Dr. D. M. Castle and Charles Liebeck for associate membership were read a second time, and on ballot all were duly elected.

Messrs. Blake, Laurent and Ridings were appointed to prepare a ticket for the election in December.

Mr. Ridings announced that in accordance with the custom of the Section the December meeting would occur on the second Monday, following the meeting of the Am. Ent. Soc.

DECEMBER 13, 1886.

Director Dr. HORN in the chair.

The following additions to the Library of the American Entomological Society were announced :

Transactions of the Academy of Sciences of St. Louis, vol. iv. From the Academy.

Canadian Entomologist, vol. xviii, No. 9. From the Editor.

Entomologist's Monthly Magazine, No. 271. From Conductors.

Annual Report of the Curator of the Museum of Comparative Zoology from 1885-86. From the Museum.

Comptes-Rendus des Sciences, Sér. iii, No. 78. From the Editor.

Outlines of Entomology published in connection with the Author's Annual Report upon Injurious Insects, part 1, by William Le Baron, M.D. From Prof. S. A. Forbes.

The following were presented by the author:—

First and Second Annual Reports on the Injurious and other Insects of the State of New York, by J. A. Lintner.

Report of some Injurious Insects for the year 1886, by J. A. Lintner.

On some Injurious Insects of Massachusetts, by J. A. Lintner.

Report on the Insects and other Animal Forms of Caledonia Creek, New York, by J. A. Lintner.

Insects of the Clover Plant, by J. A. Lintner.

On some species of Nisoniades, by J. A. Lintner.

A new principle in protection from Insect attack, by J. A. Lintner.

Cut Worms, by J. A. Lintner.

Entomological Contributions, No. 4, by J. A. Lintner.

Lepidoptera of the Adirondack Region of New York, by J. A. Lintner.

The annual report of the Treasurer was read, and on motion referred to a special committee consisting of Messrs. Knight, Horn and Lewis for audit.

The Publication Committee reported in favor of publishing paper 199, entitled "Contributions to a knowledge of the Lepidoptera of West Africa" by Rev. W. J. Holland.

Paper 200 was read by title and referred to same Committee.

Dr. Horn announced the death of Baron E. von Harold in August, and referred to the excellent work which he had done, especially among the Scarabæidæ. The "Catalogus Coleopterum," prepared in conjunction with Dr. Gemmiger, was a monument to his industry, and the most important general work published since the "Genera" by Lacordaire.

On motion of Mr. Ridings an appropriation of ten dollars was made to Mr. Coburn, the Janitor of the Academy, for his services.

The consideration of the suggestion made by the Custodian to open the rooms at night, was deferred to a future meeting.

An election for officers for 1887 was then held, and upon count of the ballots the following were declared chosen:

Director,—Dr. G. H. Horn.

Vice-Director,—H. C. McCook, D. D.

Recorder,—James H. Ridings.

Treasurer,—E. T. Cresson.

Publication Committee,—Dr. H. Skinner, Philip Laurent.